

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-20. (cancelled)

21. (previously presented) A hydraulic binder obtained through burning, said binder comprising:

- a magnesium spinel mineralogical phase, and
- at least a calcium aluminate mineralogical phase with a lime content of less than 15% of the binder by dry weight,

wherein the magnesium spinel comprises between 68% and 81% of the binder by dry weight, and the calcium aluminates are essentially made of CA and CA₂, with C=CaO and A=Al₂O₃, and comprise between 19% and 32% of the binder by dry weight.

22. (previously presented) The binder according to claim 21, comprising by dry weight of the binder, 71 ± 2% of magnesium spinel, 18 ± 2% Ca and 11 ± 2% CA₂.

23. (previously presented) The binder according to claim 21, which is substantially free from free residual MgO, at least as can be observed upon X-ray diffraction spectrum for the binder.

24. (previously presented) The binder according to claim 21, having the following chemical composition by dry weight of the binder:

- lime CaO	:	4 to 12%
- magnesia MgO	:	19 to 23%
- alumina Al ₂ O ₃	:	69 to 74%.

25. (previously presented) The binder according to claim 21, having the following chemical composition by dry weight of the binder:

- lime CaO	:	8.4%
- magnesia MgO	:	20.4%
- alumina Al ₂ O ₃	:	71.2%.

26. (previously presented) The binder according to claim 21, further comprising a SiO₂ content of less than 0.5% of the binder by dry weight.

27. (previously presented) The binder according to claim 21, having a Blaine area surface at least equal to 3000 cm²/g.

28. (previously presented) A method of using a binder according to claim 21 for producing a refractory concrete.

29. (previously presented) A method of using a binder according to claim 28, wherein said binder includes magnesium spinel in an amount between 20% and 30% of magnesium spinel by dry weight of the concrete.

30. (currently amended) A method of using a binder according to claim 28, wherein the concrete is produced by mixing by dry weight of the binder:

- between 16 and 27% of the binder,
- between 2 and 13% of fine reactive alumina,
- between 0 and 19% of ~~large~~ magnesium spinel, and
- between 52 and 71% of alumina ~~graulates~~ granulates.

31. (currently amended) A method of using a binder according to claim 28, wherein said binder is used in the manufacture of steel ladles $[(1)]$ for wear linings $[(5)]$ of such steel ladles $[(1)]$.

32. (previously presented) A process for producing a binder according to claim 21, wherein said binder is made through frittering by burning of a blend of raw materials comprising dolomite, alumina and magnesia.

33. (previously presented) A process according to claim 32, wherein said dolomite is natural.

34. (previously presented) A process according to claim 32, wherein said alumina is metallurgical.

35. (previously presented) A process according to claim 32, wherein said magnesia is reactive and has a grain size less than 100 μm .

36. (previously presented) A process according to claim 32, wherein the raw materials are, before burning, milled up to a

grain size corresponding to a 2% maximum rejection on a sieve of 65 μm .

37. (previously presented) A process according to claim 32, wherein said burning is carried out at a temperature comprised between 1400°C and 1600°C.

38. (previously presented) A process according to claim 32, wherein the degree of progression of said burning is evaluated by measuring the free magnesia content by dry weight of the mixture.